

What Is Claimed Is:

1. A recording/reproducing apparatus comprising:
  - a laser for emitting a laser beam onto an optical disk and recording a data;
  - a laser driver for outputting to said laser a voltage corresponding to the emitted light waveform obtained by converting the recording data;
  - light receiving means for receiving the reflected light of the laser beam emitted onto said optical disk;
  - a light pick-up comprising said laser and light receiving means and movable in the radial direction of said optical disk;
  - a motor for rotating said optical disk;
  - a motor driver for controlling the rotation speed of said motor;
  - test write means for controlling said laser driver and light pick-up and conducting test writing by changing the laser power in a test writing area provided in said optical disk; and
  - means for evaluating the test-written data and setting the value of the reflected light corresponding to the recording laser power as a target reflected light value.

wherein said motor driver starts recording at a linear velocity in said test writing area and controls the rotation speed of said motor so as to reach the target angular velocity when data is recorded from any location on said optical disk, and

said laser driver conducts a running OPC for controlling a voltage supplied to said laser so that the value of the reflected light obtained with said light receiving means becomes said target reflected light value during a recording period from the recording start till the target angular velocity is reached.

2. The recording/reproducing apparatus according to claim 1, wherein said motor driver conducts a CLV control to said recording start location and conducts a CAV control after said target angular velocity has been reached.

3. The recording/reproducing apparatus according to claim 1, wherein an asymmetry processing unit is provided and the laser driver is controlled so that an asymmetry value ( $\beta$  value) which is set by the optical disk is assumed.

4. The recording/reproducing apparatus according to claim 1, wherein said motor driver rises the rotation speed

of said motor in stages during the recording period from the recording start till the target angular velocity is reached.

5. The recording/reproducing apparatus according to claim 1, wherein the relationship between the laser power and linear velocity obtained with said running OPC is stored in a memory.

6. A laser power control method comprising the steps of:

acquiring a reflected light level during recording by test writing into a test writing area provided in an optical disk; and

conducting a running OPC for controlling the laser so as to obtain said reflected light level, while considering the linear velocity at the recording start location as a linear velocity on the inner peripheral side of the optical disk and increasing the rotation speed after the recording start till the target rotation speed of said disk is reached.

7. The laser power control method according to claim 6, wherein:

a CLV control is conducted to a recording start location and a CAV control is conducted after said target rotation speed has been reached.

8. The laser power control method according to claim 6, wherein:

said rotation speed is changed in stages during the recording period from the recording start till the target rotation speed is reached and said running OPC is carried out at each stage.

9. The laser power control method according to claim 6, wherein:

the time from the recording start till the target rotation speed is reached is preset according to the recording location.

10. The laser power control method according to claim 6, wherein:

the relation between the laser power and linear velocity obtained with said running OPC is stored.

11. The laser power control method according to claim 6, wherein:

the relation between the laser power and linear velocity obtained with said running OPC is stored in a medium.